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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/519,013

12/21/2004

Alberto Lodolo

KAR 007

7643

39232 7590 06/27/2008
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EXAMINER

JACYNA, J CASIMER

ART UNIT

PAPER NUMBER

3754

MAIL DATE

DELIVERY MODE

06/27/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/519,013	Applicant(s) LODOLO, ALBERTO	
	Examiner J. Casimer Jacyna	Art Unit 3754	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 March 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,6-33 and 37-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 25 and 28-30 is/are allowed.
- 6) ☒ Claim(s) 1,2,6-24,26,27,31-33,37-39 and 41 is/are rejected.
- 7) ☒ Claim(s) 40 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 December 2004 and 06 September 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date. _____ | 6) <input type="checkbox"/> Other: _____ |

1. The drawings are objected to because:

The top and left margins of figures 2, 7 and 19 are not in accordance to 37 CFR 1.84(g). Both the top and the left margins should be at least 2.5 cm.

The sectional views in figures 2, 3, 6, 10, 15 and 18 are objected to under 37 CFR 1.84(h)(3) because sectional designations should be noted with Arabic or Roman numbers.

The character of lines, numbers and letters of figure 1 are objected to under 37 CFR 1.84(l) because the lines, numbers and letters are not uniformly thick and well defined, clean, durable and black. There is poor line quality.

The numbers, letters and reference characters of figures 7, 8 and 19-21 are objected to under 37 CFR 1.84(p)(2) because the English alphabet is not used.

Additionally, the shadings in figure 1 are objected to and the sectional lines "F", "A", "E", and "C" in figures 2 and 3 are not mentioned in the specification.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering

of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: There is no use or explanation of the term "storey". This word is normally a building term used to describe the number of floors in a building. Since the term is not used or explained in the specification, it is not clear how it applies to diaphragm structure.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1, 2, 6-24, 26, 27, 31-33 and 41 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 6 depends from a cancelled claim and is thereby incomplete. The meaning of the term "storey" as it applies to diaphragm structure is not certain. This word is normally a building term used to describe the number of floors in a building. Since the term is not used or explained in the specification, it is not clear how it applies to diaphragm structure. Applicant may consider using synonyms such as "single level" or "single ply" or claiming the ribs to be on a single surface or side. Also, claim 7 (and dependent claim 8)

appears to be redundant to amended claim 1 because the central stiffening member of claim 7 appears to be in the same location as the rib along the longer axis of the dome. It is not certain how the rib and the stiffening member are related or located with respect to each other.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 37-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over McFarland, Jr. (3,011,758) in view of Rumsey (4,214,604), Stelzner (1,867,478) and Sheen (2,580,133). McFarland discloses a diaphragm valve including a dome shaped diaphragm of a single storey or ply as shown in figures 3 and 4 having a central elongate rib 12, 14 and a plurality of substantially parallel side ribs 7, 9 wherein each side of the diaphragm is alternately the convex or the concave side depending on whether the valve is open or closed as shown in figure 6 substantially as claimed but does not disclose an elliptical shape for the diaphragm nor the side ribs to be parallel to a short axis of an ellipse. However, Rumsey discloses another diaphragm valve having an elliptical shape for the diaphragm and a rectangular shape for the sealing flange for the purpose of improving fluid flow parameters. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the valve of McFarland with an elliptically shaped diaphragm and a rectangular sealing flange as, for example, taught by Rumsey in order to improve fluid flow parameters. Stelzner

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teaches another elliptical diaphragm in figures 2 and 7 with reinforcing ribs imposed over the diaphragm wherein the ribs include a long rib 4 along the long axis and side ribs 6 parallel to the short axis. Sheen teaches another elliptical diaphragm 16 with the reinforcing ribs 15 along the long and short axis. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to orient the ribs in the diaphragm of McFarland parallel with the long and short axis of an elliptical shape as, for example, taught by Stelzner and Sheen because Stelzner and Sheen teach that it is well known in the art to orient ribs in an elliptical diaphragm parallel to the axes of the ellipse and one of ordinary skill in the art would have considered this orientation to be obvious to try on the McFarland diaphragm with a high probability of success.

7. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

8. Claims 1, 2, 7-24, 26, 27, 31-33 and 41 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action. The prior art of record does not teach a diaphragm valve with the claimed valve structure that includes a substantially elliptical valve seat, a sealing flange, a weir and a bonnet wherein the diaphragm is a single storey ellipsoid diaphragm having a dome with a rib along the long axis and a plurality of ribs substantially parallel to the short axis wherein the ribs are on the side of the single storey diaphragm that faces the bonnet. Fenkel teaches the use of a diaphragm having an upper level with ribs 12 and a lower level with ribs 9 and with the lower portion

having two plies 8 and 14. As shown in figure 13, McFarland teaches the long axis rib to be on the side of the diaphragm that faces away from the bonnet.

9. Claim 40 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. Claims 25 and 28-30 are allowed.

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Casimer Jacyna whose telephone number is 571-272-4889. The examiner can normally be reached on Mon. thru Fri. 9AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on 571-272-4835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. Casimer Jacyna/
Primary Examiner, Art Unit 3754